

CHAPTER I

INTRODUCTION

This chapter discusses about Introduction which covers background of the study, problem of the study, objective of the study, the hypothesis, the variable of study the significance of the study, scope and the limitation of the study, definition of key terms, and framework of discussion.

A. Background of the Study

As we know that, there are many languages used in the world. One of them is English language. This language is the most important one in the world. It is not only as an international communication means but also to access the science and technology. In Indonesia, English is very important for students of all levels to master in order to be able to communicate with other people from foreign countries. In terms of English teaching, one of the language aspects taught is vocabulary. Ordinary people especially the old generations might not feel the direct effect caused by the globalization era. However, the young learners as the next generations have to be ready in facing the effect of the globalization era. ‘As international language, many communities in many countries in this world use it. Supeniati (2008, p. 10) “English plays an important role in every aspect of human life, such as communication, economics, education, science, and technology.”

In the development of English teaching and learning process, the teachers take an important role. They should be a model and should be able to choose the materials and methodology in presenting the materials to reach the objective of teaching and learning process. The teachers successful should find some interesting strategies or tactic to make his or her students active and creative in learning. The students always complain when they find a word but they do not know the meaning of it, so that they cannot communicate as smoothly as they want because of the limited vocabulary. According to Nunan (1999, p. 101) "Vocabulary is essential for second language learning because without an extensive vocabulary the student will be unable to use the structures and functions the students have learned for comprehensible communication." Sukrina in Andrew Oberg (2012, p. 26) states "Words are the tools of thought, if your word power is limited, you are necessarily a limited thinker, since you can neither receive ideas not communicate with others expect within the confines of your inadequate vocabulary."

Therefore, the English teachers should be able to develop and improve their basic ability in teaching learning English. In addition, a better way and easier to teach English, especially vocabulary to students is by using games, such as word search puzzle. The object of word-search-puzzle is to find the listed hidden words. Because this game could be an alternative or variation in the methods of English teaching for teachers. With this method, students will not feel bored in learning English. But they will become critical and active children in

learning English. Word search Puzzle can be designed for any educational levels, which make an ideal learning activity for the students.

From the theories above, the writer is interested using word search puzzle in teaching vocabulary to the seventh grade students of SMP Muhammadiyah Palangka Raya. The result of this study will be written in a specific report in the form of analysis entitled **“TEACHING ENGLISH VOCABULARY USING WORD SEARCH PUZZLE AT SMP MUHAMMADIYAH PALANGKA RAYA”**

B. Problem of the study

Based on the background of study, the writer formulated the problem of study,” Does teaching English vocabulary using Word search puzzle give effect to students’ score at seventh grade students of SMP Muhammadiyah Palangka Raya?

C. Objectives of the Study

Based on the formulation above, the objective of this study is to measure whether the use of Word search puzzle gives effect or not in teaching vocabulary at seventh grade students of SMP Muhammadiyah Palangka Raya.

D. The Hypotheses

In relation to the objective of this study, there are two hypotheses formulated in this study, they are alternative hypothesis (Ha) and null hypothesis (Ho).

1. Alternative hypothesis (Ha): The use of word search puzzle give effect to students' score of seventh grade students of SMP Muhammadiyah Palangka Raya
2. Null hypothesis (Ho): The use of word search puzzle does not give effect to students' score of seventh grade students of SMP Muhammadiyah Palangka Raya

E. Variable of the Study

Fraenkel and Norman (1990, p. 39) states "There are two kinds of research variables. They are independent variable and dependent variable. Independent variable is presumed to have an effect on, to influence some how another variable, while dependent variable is a variable that the independent variable is presumed to affect. As the experimental study, there are two variables of the study there are:

1. The independent variable of study (X) is the use of Word search puzzle in teaching vocabulary for the seventh grade students at SMP Muhamadiyah Palangka Raya
2. The dependent variable of the study (Y) is the students' vocabulary scores of the seventh grade students at SMP Muhammadiyah Palangka Raya

F. The Significance of Study

In this study, there are some expectations. It was expected that the result of this study would be useful are:

1. The teacher

After knowing the effect in teaching vocabulary using Word search puzzle, the teacher can implement this method when they teaching vocabulary.

2. The students

This study will be helpful for students in vocabulary and the students apply Word search puzzle to increase their English vocabulary.

3. The other researcher

It can be as the source of information for other researchers who are also investigating about Word search puzzle on teaching vocabulary.

G. Scope and Limitation of the Study

Present Researcher limits the study on subject and object.

1. The object of this study is limited to the use of word search puzzle application on teaching vocabulary at seventh grade students of SMP Muhammadiyah Palangka Raya
2. The subject of this study is limited to seventh grade students of SMP Muhammadiyah Palangkaraya.
3. The vocabulary is limited to the noun, based on the syllabus used at seventh grade students of SMP Muhammadiyah Palangka Raya

H. Definition of Key Terms

There are some key terms that should be explained in this study as follow:

1. Teaching

According to Brown (2000, p. 7) “Teaching is defined as showing or helping someone to learn how to do something, giving instructions, guiding in this study of something, providing with knowledge, causing to know or understand.” In this case, teaching vocabulary is an activity to teach vocabulary to the student carried out by a teacher to make progress the students’ mastery of vocabulary.

2. Vocabulary

Hornby (1995, p. 1331) “Vocabulary is the total number of words in a language that a person knows or uses.” It can be also defined that vocabulary is a list of word with their meanings, glossaries and sum of words are used in language.

3. Word search puzzles

Word search puzzle is a game in the search foe the word, either vertically, horizontally, and diagonally. This game can help students increase their vocabulary and make them happy in learning.

I. Framework of Discussion

The writer is going to discuss five chapters as follows:

Chapter I: Introduction which covers background of the study, problem of the study, objective of the study, the hypothesis, the variable of study the significance of the study, scope and the limitation of the study, definition of key terms, and framework of discussion.

Chapter II: Review of related literature which covers previous of study, concept of teaching, vocabulary (general concept of vocabulary, types vocabulary, the important of teaching and learning vocabulary), concept of word search puzzle, (teaching vocabulary through word search puzzle, procedure of teaching Vocabulary Using Word search puzzle, and list of vocabulary)

Chapter III: Research Method (Research type, research design and approach), population and sample, instruments of study, Research instrument validity, Research instrument reability, Data analysis procedure, data Collecting procedure, normality test, and homogeneity test.

Chapter IV: Finding and Discussion, The Presentation of Data, (Distribution of Pretest Score of Experiment Group, Distribution of Pretest Score of Control Group, Distribution of Posttest Score of Experiment Group, Distribution of Posttest Score of Control Group), Testing Normality and Homogeneity, Testing Hypothesis using T-test, Testing Hypothesis using SPSS program, Interpretation, and Discussion.

Chapter V: Conclusion and Discussion.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter discusses about Review of related literature which covers previous of study, concept of teaching, vocabulary (general concept of vocabulary, types vocabulary, the important of teaching and learning vocabulary, Level of vocabulary for Junior High School), teaching vocabulary using word search puzzle, procedure of teaching vocabulary using word search puzzle and list of vocabulary.

A. Previous of Studies

In this chapter, some literatures related to the study are reviewed are as means to clarify the present students. The writer has found four related studies done by the previous researchers.

For the first Ria Damayanti's thesis is entitled "Teaching Vocabulary Through Word Search Puzzle to the Fifth Grade Students of SDN 01 Ngalik Blitar in the Academic Year 2013/2014. In Ria Damayanti's thesis she found after the student taught vocabulary through word search puzzle showed that t -test value 9.704 with probability 0.000 and t table 9.38. So, t test value $(9.704) > t$ table (9.38) and probability $0.000 < 0.05$. It means that H_a which states that there is significant effect of using word search puzzle technique on students' achievements in vocabulary is accepted. Where H_o which states that there is no significant effect of using word search puzzle technique on students' achievements in vocabulary is rejected. Damayanti (2013, p. 10) states

“teaching english vocabulary by using word search puzzle is suitable technique to improve students’ achievements in vocabulary at fifth grade of SDN 01 Ngaglik, Blitar.”

The second, Bell Manrique Losada (2012, p. 213) entitled “Designing and Solving Crossword Puzzles: Examining Efficacy in A Classroom Exercise” Using games in the classroom is an effective tool in the learning and teaching process. Educators have employed various experiential strategies in order to improve teaching effectiveness. One technique is to use crossword puzzles which can be tailored to the particular concepts of interest. This approach employs several useful student skills including vocabulary, reasoning, and spelling. In addition to the process of students solving puzzles, another important consideration is their involvement in the design process. Crossword puzzles can be used for teaching a specific subject especially since they can be adapted and tailored in limitless ways. Designing and solving puzzles requires several useful skills including the exercise of vocabulary, reasoning, and spelling. Although the use of crosswords in the classroom is not new, we propose an alternative view of the process by having students both design and solve puzzles. We evaluate this approach with case studies accompanied by results revealing the suitability of the exercise for undergraduate students. These findings show that students perceive themselves to be better equipped to handle concepts as a result of this crossword puzzle exercise.

The third, Santi Dyah Anggraeni thesis is entitled “The Effectiveness Of Word Search Puzzle Games On Vocabulary Mastery For The Students Of First Grade In Mts Muhammadiyah 1 Malang” This Research was intended to know the significant difference of using Word Search Puzzle Game on vocabulary mastery of the first grade students of MTs Muhammadiyah 1 Malang. It was conducted based on the fact that the English score of the students was not satisfactory. The researcher tried to present Word Search Puzzle Game to teach vocabulary mastery. It was selected because it could provide fun and enjoyable learning atmosphere. This study used a quasi experimental design to know whether or not the Word Search Puzzle Game could improve the students’ vocabulary mastery. In the experimental research, the classroom was divided into experimental group and control group. The experimental group was given a treatment with Word Search Puzzle and control group was taught by using a regular technique. The population of this research was the first grade students of MTs Muhammadiyah 1 Malang that consist of 3 classes. The researcher took 2 classes for this research which the characteristic both of class were equal. The total number of first grade was 69. 23 students were in 7A class, 23 in 7B and the other students were in 7C class. The instruments used to collect the data were pre-test and post-test. The data of this study were analyzed using ANOVA. The result of ANOVA found that significant value was .030 was less than .05 since significant value was less than .05 so the Null H was rejected. It meant that teaching vocabulary by using

Word Search Puzzle Games improve the vocabulary mastery of the students first grade at MTs Muhammadiyah 1 Malang.

The fourth, Ika Fitria Astutik thesis is entitled “The Use of Word Search Game To Develop Students’ Mastery of Vocabulary at The Seventh Year Students of Mts Tarqiyatul Himmah In The Academic Year Of 2013/2014. This study was focused on implementation of Word Search Game to develop students’ mastery of vocabulary of the seventh year students of MTs Tarqiyatul Himmah in the academic year of 2013/2014. The objectives of this research were to find out the difference of lecturing and Word Search Game of the seventh year students of MTs Tarqiyatul Himmah in the academic year of 2013/2014. This research applied truth experimental research. The objects of the research were two classes in the seventh year of MTs Tarqiyatul Himmah. The first class was 7A as the control group and the second class was 7B as the experimental group. The data was collected from the score of pre-test and post-test after the treatment. The data was tested using t-test formula by comparing the mean score of pre-test and post-test from both classes. The level of significance was set equal or less than 5%. The result of this study showed that t-value 5, 011 was higher than t-table 2, 063 with the degree of freedom (df) of 25. Therefore, it can be concluded that there was significant difference after teaching vocabulary using Word Search Game. Thus, it can be said that Word Search Game could to improve students’ vocabulary mastery of the seventh year students of MTs Tarqiyatul Himmah in the academic year of 2013/2014

Based on the previous studies above, the writer did different study, in this case the writer had different subject and object of the study, in this study the writer's subject was limited to seventh grade students of SMP Muhammadiyah Palangkaraya, and the writer object of this study is teaching English vocabulary using of word search puzzle application, and the vocabulary limited to the noun, based on the syllabus used at seventh grade students of SMP Muhammadiyah Palangka Raya

B. Concept of teaching

According to Finocchiaro, teaching is trying to keep the students motivation high by using a variety of short activities-four to six different activities-within a 45-minute period cantering around the same teaching point, whether a grammatical feature, a notion, or a function of language, through the cognitive-code theory, that is, the inductive presentation of a linguistic item or category, with tasks and activities that will lead to habit formation of features of pronunciation, morphology, and syntax, which will in turn, lead to fluency and accuracy by focusing more specifically on social communication as the major of objective of language teaching. Teaching is an interactive process between the teacher and students and among students themselves. The students need to comprehend the new language, but will be better to do this when allowed asking about what it is they do not understand rather than rely on their teacher or textbook to anticipate areas of comprehension difficulty and simplify a priority. Brown (2007, p. 959) states "Teaching is accompanied by evaluation to know the

results of teaching learning activities because evaluation is a necessary component of all activities, especially in TEFL, whose main objective is to monitor, to help, and to grade the student's use of the language. Teaching is showing or helping someone to learn, giving instructions; guiding; providing with knowledge; causing to know or understand.”

C. Vocabulary

1. General concept of vocabulary

According to Hornby (1995, p. 1331) “Vocabulary is the total number of words in a language that a person knows or uses.” In short, it can be said that vocabulary is a group of words of which are arranged in such a way to construct the meaning for making a language.

One of the linguistic concepts that must be included in learning English language is vocabulary. It means that vocabulary plays an important role in language. In learning a language someone will learn the words of the language so that he or she can communicate with others. Hornby (1995, p. 1331) “vocabulary as a total number of the words, which make up a language and that person know or use.” According to Haycraft (1986, p. 44) “Vocabulary is a list of words, which means any unit of language used in writing, and appears between space hyphens. Words are the basic element in constructing a language. Related to English teaching-learning process, language skills such as listening, speaking reading, and writing needs a series of words that are called vocabulary.” In other words, vocabulary is an important role in English

language teaching. Active vocabulary refers to the words which the student understands, can pronounce correctly and uses constructively in speaking and writing. Passive vocabulary refers to the words that the student recognizes and understands when they occur in a context, but which he cannot produce correctly himself. On the other hand, passive vocabulary refers to the words in which the students can recognize and understand while they are reading or listening to someone speaking, but they do not use the words in speaking or writing.

According to Hockett in David Nunan (1998, p. 117) “vocabulary is the easiest aspect of a second language to learn and that it hardly required formal attention in the classroom.” In David Nunan’s book, Rivers has also argued, “vocabulary is essential for successful second language use because, without an extensive vocabulary, we will be unable to use the structures and functions we may have learned for comprehensible communication”. The writer assumes vocabulary is a basic and a foundation to learn English. Thus, a poor vocabulary in college level has adverse effects on students. According to David Wilkins by Frankie Subon (2013, p. 1) “The importance of vocabulary learning, (without grammar very little can be conveyed, without vocabulary nothing can be conveyed).”

In Fajar Furqon (2013, p. 71) research Cameron stated “building up a useful vocabulary is central to the learning of a foreign language at primary level. Someone who has a lot of vocabulary of foreign language, she/he could

learn language easily. Since vocabulary is all about words, and good mastery of vocabulary helps someone understand language.” It is supported by Wallace (1982, p. 50) says “that vocabulary is one of the most important parts of languages, because when speaking a language, the speakers need several words to convey ideas.” Therefore, people can understand what the speakers mean. When a learner intends to learn foreign language, he/she has to learn the vocabulary of the foreign language first.

Based on the explanation above, the writer concludes that vocabulary is a part of language component. Vocabulary is the form at all words that human being use to communicate each other. Trough vocabulary, people convey what they want to say and receive what they want to hear.

2. The types of vocabulary

a. Function Words

According to Hidayah (1982, p. 50) “Function words are words that have little lexical meaning for have ambiguous meaning, but instead serve to express grammatical relationship with the other words within a sentence, or specific attitude or mood of the speaker. They signal the structural relationships that words have to one other and are the glue that holds sentences together. Thus, they serve as important elements to the structures of sentence.” Function words might be preposition, pronoun, and auxiliary verbs. All of which belong to group of closed-class words. From that reason the kinds of function words are:

a. Preposition

The preposition is classified as a part of speech in traditional grammar; however prepositions as well as conjunctions differ from other part of speech in that, each is composed of a small class of words that have no formal characteristic ending and each signal syntactic structures that function as one of the other part of speech. For this reason modern linguists prefer to classify prepositions as structure words rather than as part of speech.

Preposition range in meaning from such as definite semantic notion as time, place, etc., to such purely structural meanings as that shape by the subject-verb-complement relationship. The types of preposition are, preposition of time using on, in and at. Then the preposition of extended time to starting at the point and ending at other (duration) using since, by, from-to (or until, till), for, during, and in or within. Next, the preposition of sequence of time, events that follow one other is using word before and another. Examples:

1) Preposition of time:

- a) On; I saw him on Sunday
- b) In; I saw him in the morning
- c) At; I saw him at night

2) Preposition of extended time

- a) Since; I have not seen him since Monday

b) From-to; I can see you from ten o'clock to three o'clock

c) For; I see you for one hour

d) During; I can see you during the week

e) In or within; I can see you in an hour from now

3) Preposition of sequence of time

a) Before; I will see you before Wednesday

b) After; I will see you after Wednesday

b. Pronouns

Pronouns make up a small class of words of a very high frequency. The definition of preposition as a word that takes the place of noun, is applicable to some types of pronouns but to others that pronouns that are actual substitutes may refer not only to preceding noun-its antecedent-but not a larger part of a discourse that precedes. That pronoun that are not substitutes may simply have indefinite reference express indefinite quantity. Types of pronouns;

1) Personal pronoun

There are two personal pronouns such as, nominative case, they are; I, you, we, they, he, she, and it. The second is objective case, they are; me, you, him, her, his, us and it.

Examples:

- I go to party
- I she loves her parents

2) Possessive pronouns

a) Possessive pronouns as adjective

Examples:

My : milik atau kepunyaan saya

You : kepunyaan kamu

His : kepunyaan dia perempuan

Her : kepunyaan dia laki-laki

Its : kepunyaan dia (binatang/ benda)

Our : kepunyaan kami/kita

b) Possessive pronouns as a pronouns

Mine : milik saya

Yours : milik kamu

His : milik dia laki-laki

Her : milik dia perempuan

Theirs : milik mereka

Ours : milik kami

3. Reflexive pronouns

There are two aims of reflexive pronouns, such as; first to show the people/ animals to do something itself. The second is to make the pronouns more emphatic. The words are; himself, myself, yourself, themselves, itself and ourselves.

c. Auxiliary verb

Auxiliary verbs is functioning auxiliary verb assists the role of it is (the jobs activity) in english, verb functioning as a predicate in the sentence can be change according the tenses form. They are, be it words use to make progressive and passive form, do, it use to make negative sentences, interrogative sentences, and command sentence. Have, it is use to make a perfect form.

b. Content words

Content words are that have meaning. They can be compared to grammatical words, which are structural verbs, nouns, adjective, and adverbs, they are:

1. Noun

Noun are one of the most important parts of speech. Nouns are that indicate people, thing, place, animal, etc. Some nouns may belong to more than one of types give below, such as,

a) Proper nouns

Proper noun begins with a capital letter in writing. It includes personal names (Mr. John Smith), names of geographic units (countries, cities and rivers), names of nationalities and religion (Christianity), names of holidays (Easter, Thanksgiving day) and words use for personification a thing or abstraction treated as a person (nature, library).

b) Concreate and abstract nouns

Concrete nouns is a word a physical object that can be perceived by the sense-we can touch, smell the object as like a flower, girl. An abstract noun is a word for concept-it is an idea that exists in our minds only for example; beauty, bad and naughty.

c) Countable and no countable nouns

A countable noun can usually be made plural by the addition of -s, one girl, two girls. A no countable is not use the plural. Some non-countable nouns may also be use in a countable sense and will therefore have a plural. In additon, a non-countable may be use in the plural with the special meaning.

2. Verbs

Verb are word that indicate the name of action that is done of the subject or may be indicate the situation. The types of verbs describe here differ according to the kind of complement they may have. Because that types may cut across each other, a verbs may belong to more tahn one type. They are; transitive and intransitive verbs. Transitive verbs is takes a direct object, for example; he is reading a book. The second is intransitive verbs is do not require an object, for example; he is working in the park.

3. Adjective

The adjective is modifier that has grammatical property of comparison it is often identify by special derivational endings or by special adverbial modifiers that precede it. It is most usual position is before the noun it modifies, but it fills other positions well.

4. Adverb

According to Jeremy Harmer (2001, p. 37) states “Adverbs are the words or group of words that describes or adds to the meaning of a verb, adjective, another adverb, or a whole sentence.” Adverbs range the meaning from words having a strong lexical content (that describe the action of the verb, or that indicate such as meaning as time and place) to those that uses merely for emphasis. They range in function from close to loose modifiers of the verbs.

According Yunita Dewi (2010, p. 11) “there are some types of adverbs, they are;”

1) Adverb of manner

Adverb of manner is adverb that explaining as something happen or have done. Adverb of manner is to answer the question “how”.

Examples, easily, fluently, happily, etc.

2) Adverb of place

Adverb of place is adverb that explaining about where something case that happen. It is usually put after direct object. For examples; at home, here, in Jakarta, etc.

3) Adverb of time

Adverb of time is adverb that explaining about when or whenever the case that happen. It is can put on first or the last sentence. For example; in December, now, today, etc.

4) Adverb of degree

Adverb of degree is adverb that explaining the level of something have done. It is usually put before adjective or adverb. For examples; little, rather, very, etc.

5) Adverb of frequency

Adverb of frequency is adverb that explaining about how often or not something case that happen. For example; always, usually, never, etc.

6) Interrogative adverb

Interrogative adverb is adverb to ask something that happen. For example; what, which, when, etc.

In this study, limit the content words that are relevant of material that give is give by the teacher in the school of noun words.

3. The importance of teaching and learning vocabulary

According to Endang Fauziaty (2002, p. 169) Vocabulary is central to language and critical importance to typical language learner. Without a sufficient vocabulary, one cannot communicate effectively or express his idea in both oral and written form. Having a limited vocabulary is also a barrier that precludes learning from learning a foreign language. When do not know how to enrich their vocabulary. For example, they gradually lose interesting learning. It means that in learning another language the important thing is to mastery the vocabulary, when the learners learning a language, they deal with the vocabulary. It is clear that vocabulary cannot be ignored in studying a native or a foreign language. Vocabulary is one of the important factors in English language. It means that if someone has a lot of vocabulary in his or her mind, they will never find any difficulties in learning the language and will have a great successful in developing language skill.

Besides, vocabulary is the important factor for practicing language as a means of communication. Vocabulary is a basic skill to communicate; people will not be able to communicate easily without knowing it. People primarily communicate by using words. They come into contact with words. If one wants to be able to communicate in a certain language, her or she has to know about the vocabulary of language. It is clear that vocabulary is one of the most significant aspects of language, and needed for development of the four aspects of communication namely: listening, speaking, reading and

writing. It means that in teaching English, vocabulary is the bridge for their skills to achieve a certain goal such as in speaking, reading, listening, and writing.

4. Level of vocabulary for Junior High School

English a foreign language that place an important thing to be taught for the purpose of absorption and development of technology, science, culture, and art, the development of International relation and communication with other people all over the world.

Realizing that English very important, our government is the decision to put English in the national curriculum as the first foreign language that must be taught to be students at the junior high school, start from first grade to seventh grade. The students of junior high school are usually called young learners. Children or young learners are by the nature are different from adult. They like playing and moving whereas adults seem reluctant to move and regard playing as childish. The teaching learning process sometime makes the junior high school students get bored. Beside that, the teachers must be creative in managing the classroom in order to make the class alive. To realize an interesting learning activity, the teacher needs to have a special ability or skill, Douglas Brown (2001, p. 87) “to successfully teach children a second language requires specific skills and an intuition that differ from those appropriate for teaching adult.”

According to Jeremy Harmer (200, p. 82) “Teaching vocabulary to young learner is not easy. There is a difference between teaching to children and adult. According to Harmer, teaching children is not simple thing. They have complex characteristic. They do not just focus on what is being taught, but also learn all sorts of other things at the same time, trying to find information from whatever is going around them.”

Scott & Ytreberg (1990, p. 1) “Teaching to young learners is difficult. In order to teach English successfully to young learners, the teacher has to consider the characteristics of young learners and try to make appropriate technique, so they are motivated and enjoy in teaching-learning process. What should be done by an English teacher in his teaching to children namely; 1) Words are not enough, 2) Play with the language, 3) Variety in the classroom, 4) Routines, 5) Cooperation.”

According to Nation in his book “teaching and learning vocabulary”, in Esna (2009, p. 3) state that “teaching vocabulary is directly related to some other language activities.

Scott Thornbury (2002, p. 59) state that “they are seventh level of vocabulary such as;”

No	Level	Words
1	Easy Starts	200 words
2	Level one beginner	300 words

3	Level two Elementary	600 words
4	Level three pre-intermediate	1.200 words
5	Level four intermediate	1.700 words
6	Level five upper-intermediated	2.300 words
7	Level six advanced	3.000words

The students of SMP Muhammadiyah are still in beginners' level, so the writer teaches them 100-200 words in this research, based on handbook of the teacher. The level of vocabulary in SMP Muhammadiyah Palangka Raya is easy starts.

D. Teaching Vocabulary Using Word Search Puzzle

1. Definition of Word Search puzzle

According to Yulianto (2011, p. 36) Word Search puzzle is a word game that is letter of a word in a grid that usually has a rectangular or square shape. The objective of this puzzle is to find and mark all the words hidden inside the box. The word may be horizontally, vertically, or diagonally. From the explanation above the writer concludes that word search game is a word game that is letter of a word and the form may be horizontally, vertically or diagonally.

2. Word Search Puzzle Game

According to Nguyen Thi Thanh Huyen (2001, p. 8) learning vocabulary through games is one effective and increasing way that can be applied in any classrooms.

By searching and analyzing some words, word search game can increase vocabulary for students in seventh class of many random words. They analyze and form the words in certain category to memorize new vocabulary by it. Based on the definition above, the writer concludes that word search puzzle is an activity in English teaching learning process by using words game. The forms of word search puzzle are some words which arranged randomly.

3. Instruction to play the game:

- a. Word is usually placed horizontally, vertically and diagonally, and then backwards in any of those directions.
- b. The best way is to scan the grid row by row, from left to right. This will help you pick up all the words that are written as words on a page.
- c. Then do the same for vertical lines from the left to right scanning top to bottom. This will leave words that placed backwards and diagonally which sometimes can be harder ones to be spotted.

4. The Form of Word Search Puzzle

Word search game is a game which is used to increase English Vocabulary. Word search game is a term with random words to get a word from it. It is a puzzle with random letters in order to create some new words.

As one of media in English teaching learning, word search game used to make the students interesting in teaching and learning process. This game can help the students to know and understand about new vocabulary. The student can get a word from that letters by searching and forming based on certain category, and then analyzes the words from the table.

5. The advantages of game in learning process

According to Lukianehko (2008, p. 10) There are several advantages to using games in the learning process, such as;

1. They encourage students to interact and communicate,
2. games can involve all the basic language skills, listening, speaking, reading, and writing, and a number of skills are often involved in the same game,
3. Many games can be played in small groups, there by developing their interpersonal skills,
4. Games involve students in active learning,
5. They foster a more positive attitude toward the classroom experience – more attention, better attendance, better participation,
6. They improve retention, decision-making skills,
7. Comprehension of general principles.

6. The disadvantages of game in learning process

Based on Nova Pravita (2010, p. 36) There are two disadvantages to using games in the learning process, such as;

1. The disadvantage of applying games in teaching learning process was by attracting student's interest to games, all of them were active and made noisy. Sometimes they too much moved and spoke. That condition made the teacher difficult to control them.
2. Applying some games in teaching learning process was by doing games the teacher only had a little time to explain the material and gave some new vocabularies. So there was no longer time for teacher to explain more and help them to memorize all the new vocabularies.

E. Procedures of Teaching Vocabulary Using Word Search Puzzle

Procedure to teach vocabulary by using word search puzzle activities can be useful medium for teaching foreign language to children. Word search puzzle that can be used in situational language practice is hence an essential part of the teacher's equipment. Munawaroh (2013, p.1) exclaimed in her journal that there are suitable procedures to do vocabulary games as follow:

1. The teacher gives clear instruction to explain the games rules. Games have many rules, as a game word search has rules too. Before the game is played surely the teacher must show the rules for the students. So, the students understand and they can play the game.
2. The teacher giving an example of playing the games. After the teacher has showed the rules, she/he must give an example to play the game. Of course after the teacher gives the example of the games surely they can play it.

3. The students focus on the teacher instruction. Beside the teacher explains about the game then gives some instruction, the students must focus. So, they will know about the game
4. Teacher giving the word search puzzles and ask the students to arrange the words. After the students clear enough with the explanation and the instruction from the teacher then they play the game.
5. Teacher gives 20 minutes to finish their work, then the students discuss together.

F. List of Vovabulary

The writer's focus only noun especially about the list of items. because it is on the material of the school and the syllabus.

Table 2.1 The List of Vocabulary

No	List of words		
1	Pencil	56	Hat
2	Book	57	Oil
3	Pen	58	Doll
4	Picture	59	Sink
5	Chair	60	Towel
6	Table	61	Antiseptic
7	Eraser	62	Shower
8	Blackboard	63	Detergent
9	Cupboard	64	Comb
10	Map	65	Toilet
11	Chalk	66	Shaver

12	Sharpener	67	Brush
13	Crayon	68	Mirror
14	Ruler	69	Mouthwash
15	Dictionary	70	Shampoo
16	Calculator	71	razor
17	Bag	72	Soap
18	Calendar	73	Sponge
19	Projector	74	Tissues
20	Laptop	75	Toothbrush
21	Clock	76	Toothpaste
22	Computer	77	Tap
23	Broom	78	Lamp
24	Marker	79	Flower
25	Shoes	80	Plant
26	Aquarium	81	Grass
27	Curtain	82	Path
28	Sofa	83	Umbrella
29	Guitar	84	Fence
30	Television	85	Pond
31	Calendar	86	Floor
32	Magazine	87	Summerhouse
33	Bowl	88	Candle
34	Spoon	89	Stone
35	Fork	90	trashcan
36	Glass	91	Tree
37	Cup	92	Bridge
38	Bed	93	Money

39	Pillow	94	Bookcase
40	Blanket	95	Iron
41	Helmet	96	Salt
42	Knife	97	Stove
43	Wallet	98	Refrigerator
44	Fan	99	Vase
45	Egg	100	Door
46	Bottle	101	Clothes
47	Printer	102	Sugar
48	Paper	103	Motorcycle
49	Charger	104	Car
50	Roof	105	Ventilation
51	Bracelet	106	Remote
52	Ring	107	Pant
53	Carpet	108	newspaper
54	Sandal	109	Box
55	Necklace	110	perfume

CHAPTER III

RESEARCH METHOD

This chapter discusses about Research Method (Research type, research design and approach), population and sample, instruments of study, Research instrument validity, Research instrument reliability, Data analysis procedure, data Collecting procedure, normality test, and homogeneity test.

A. Research Method

1. Research Type

In this research, the writer used quantitative research method. According Donald Ary (2010, p. 648) “quantitative research a ginnery employing operational generations to generate numeric data to answer predator mined hypotheses or questions.” The research is mean to find the answer from the result of test by collecting and statistically analyzing data that are in numerical form.”

2. Research Design

The design of this study is quasi-experimental. Because the writer wanted to find out whether the students whom taught using word search puzzle gain better scores than the students whom taught without using word search puzzle. The writer used nonequivalent control group design. It is one of the most widespread experimental design in educational research. Daniel Muijis states (2004, p. 18) “Quasi-experiment involved an experimental

group and a control group both give a pretest and posttest, but in which the control group and the experimental group do not have pre-experimental sampling equivalence.

Wido (2006, p. 215) states “the design consist of two group that were choice random, they are experiment group and control group. Both of groups is give treatment and the control group is teaching usually that is using by the english teacher before this study. After have treatment, both groups are give post-test to know the result of treatment. Be discussing research design of quasi-experiment study, it useful to understand some basic-term as follow:”

1. Experiment

In this study, the writer wanted to reveal the effectiveness word search Puzzle to promote vocabulary and the students score. In this case, there is manipulation of the subject between the subject who teaching with word search puzzle and without word search puzzle in teaching learning process.

2. Subject

A subject is a person who takes parts in an experiment and control group. Subject can also be referres to as participants. The subject receives the treatment called experiment group have the regular treatment, or they receive a standard treatment or condition without using word search puzzle.

3. Treatment

A treatment is an event, a condition, or an activity that is expected to produce an outcome. A condition term is used as synonym for his term. In this study, the writer gives a treatment to the the ekperiment group. In this case, the writer taught by using word search puzzle of the seventh grade students at SMP Muhammadiyah Palangka Raya. In the pre-teaching the writer prepared the word search puzzle and intoduced the material. In the while teaching, the writer taught by using word search puzzle. In the post-teaching, the writer reviewed the material.

Table 3.1

The design of quasi-experimental study

Classes	Pre-test	Treatment	Post-test
VII A	Y1	Experiment	Y1
VII B	Y2	Control	Y2

Where: Y1: Experiment group

Y2: Control group

The both groups are taught with the same material. Therefore, the use of Word Search puzzle as a way to teach vocabulary especially for noun as the material applied on experiment group only. Meanwhile, the control group was not be given the treatment.

3. Approach

In this study, the writer used quantitative approach. It is because the writer wanted to find out whether the students whom taught using word search puzzle gain better scores than the students whom taught without using word search puzzle by tests; pretest and posttest. Creswell (1994, p. 2) states that “a quantitative study, consistent with the quantitative paradigm, is an inquiry into a social or human problems based on testing a theory composed of variables, measure with numbers, and analyzed with statistical procedures, in order to determine whether predictive generalizations of the theory hold true.”

B. Population and Sample of the Study

1. Population of the Study

Population is all the subject of the research. According to encyclopedia of educational evaluation by Silviana wijayanti (2012, p. 35) “a population is a set (or collection) of all elements processing one or more attributes of interest.” Population is any group of individuals that has one or more characteristic in common. The population of this study was the seventh grade students of SMP Muhammadiyah Palangka Raya in academic year of 2017/2018, they are 117 students. It is classified into five classes.

Table 3.2**The Population of Seventh Grade Students at SMP****Muhammadiyah Palangka Raya**

No	Classes	The number of Students
1	VII – A	24
2	VII – B	24
3	VII – C	23
4	VII – D	23
5	VII – E	23
The total number		117

2. Sample of the Study**Table 3.3****The number of sample of the seventh grade students of SMP Muhammadiyah****Palangka Raya**

No	Classes	Group	Number of Students
1	VII- A	Experiment	24
2	VII- B	Control	24
Total Number			48 Students

In the study, cluster sampling used by the writer. Cluster sampling is used if the population is not consist of individuals, but groups or cluster. Because the population of this study is seventh grade students of SMP Muhammadiyah Palangka Raya which consists of five classes , then the writer took VII-A and VII-B, because they representend the average English scores of the whole population. The VII-A class was as the experiment class and VII-B was as the control class.

C. Instrument of study

1. Research instrument

To get the data, the writer used two techniques in this study, namely: test and documentation.

a. Test

Heaton (1978, p. 1) “Test may be constructing primarily as devices to reinforce learning and to motivate student, or primarily as a means of as seeing the student’s performance the language.”

The writer took the data of this research by using a test. The test is used to know the result of students’ vocabulary mastery and which give the description of the students whom taught using word search puzzle gain better scores than the students whom taught without using word search puzzle. The test is vocabulary test. The total item of the test is 50 multiple choice, it was limited to the content words that relevant to the material that given; noun word about the list of items, because it wants to

measure the students' vocabulary mastery. The writer gave pretest and posttest to the experimental and control class. Pretest is a test given to know the students' vocabulary mastery before the writer gives treatments, and Posttest is a test given to know the differences of students' vocabulary mastery before and after giving treatments.

Lattice Grating Instrument Research

Variable	Indicator	Items	Σ
Vocabulary Mastery	<ul style="list-style-type: none"> • Mention the noun according to the meaning requested 	<ul style="list-style-type: none"> • 1,2,5,7,8,9,10 17, ,19, 22, 28, 32,33, 36, 	<ul style="list-style-type: none"> • 14
	<ul style="list-style-type: none"> • mention the name of the object based on the given image 	<ul style="list-style-type: none"> • 2,3,4, 6, 11, 12, 13, 14, 15, 16, 18, 20, 21,23, 24,25, 26, 27, 29, 30, 31, 34, 35,37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50. 	<ul style="list-style-type: none"> • 36

b. Documentation

Documentation of this study as the second technique to support the data. Documentation was applied to get the needed information at seventh grade students of Muhammadiyah Palangka Raya. The data collected in this research were:

- 1). Number of students of seventh grade students at SMP Muhammadiyah Palangka Raya
- 2) The result of students scores in teaching vocabulary
- 3) The curriculum uses at SMP Muhammadiyah Palangka Raya.

2. Instrument Try-out

The writer tried out the test instrument because it was important before the test applied to the sample of the research. The instrument try-out administered to the VII- C class of students at SMP Muhammadiyah Palangka Raya. The time allocation of tried out process was 60 minutes. The total item of the tried out test was 80 multiple chooice, it was limited to the content words that were relevant to the material that given; noun words about the list of items.

The instrument try-out is important because the result of try-out used to measure the instrument whether the test has some criteria of qualified test or not. There were some criteria in analyzing the test instrument to know the quality of the test, such as instrument validity, instrument reliability, and index difficulty. In this study, the writer analyzed the quality of the test using validity, reliability and index difficulty. There were some procedures in carrying out the try out as follows:

- a. The writer prepares the test instrument.
- b. The writer arrange try-out the test instrument to the respondents.
- c. The writer gives score to the respondents' answer sheet.
- d. The writer calculates the result of the test.

- e. The writer analyzes the data obtain to know the instrument validity, instrument reliability, and index of difficulty.

D. Research Instrument Validity

According to Heaton (1974, p. 153) states “The validity of a test is the extent to which it measures that is suppose to measure and noting else.” An instrument is considers being a good one if it meets some requirement. One of them is validity.

Heaton (1974, p. 153) states “Every test, whether it is a short, informal classroom test or public examination, will be a valid the constructor can make it. The test must aim to provided a true measure of a particular skill that it was intend to measure, to the extent that is measure external knowledge and other skills at the same time, it will be not a valid test. Validity on this study was distinguished into some kinds as follows:”

1. Face validity

This type of validity, in fact is often referred to as face validity: if a test item looks right to other testers, teachers, moderators, and testes. The test used by the writer was suitable to others and the same level that is junior high school level. The face validity of the test items as follow:

- (a) The kind of test is vocabulary test which was about the list of items.
- (b) The form of the test items was multiple choices.
- (c) The languages of items use English.

(d) limit the content words that were relevant of material that given was noun words.

(e) The test items were suitable to the junior high school.

2. Construct Validity

Heaton (1974, p. 153) states “Construct validity is type of validity which assumes as existence of certain learning theories or constructs underlying the acquisition of abilities and skill.” Since the type of test was vocabulary test, the form of test was multiple choices. In this case, the test was a written test in form of multiple Choices in order to measure the students’ vocabulary mastery.

3. Content validity

Heaton (1974, p. 154) states “This kind of validity depend a careful analysis of the language being test and particular of the course objectives.” The tests item in this research was measured the students’ English vocabulary mastery and based on English teaching learning curriculum apply in SMP Muhammadiyah Palangkaraya.

Based on the explanation above, in making the test the writer matched each of the items test with the curriculum that is used by SMP Muhammadiyah Palangka Raya. The purpose is in order to make the test was appropriate with the lesson that the students accept while having the research.

According to Ridwan (2004, p. 110) states “To measure the validity of the instrument, the writer uses the formulation of product moment by person as follows:”

$$r_{xy} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

Where:

- r_{xy} = Numeral of index correlation “r” product moment
- \sum_{xy} = Amount of the product between X score and Y score
- \sum_x = Amount of the X score
- \sum_y = Amount of the Y score
- N = Total of sample

Furthermore, it was calculated using T-test calculation below:

$$t_{\text{observed}} = \frac{r \sqrt{n-2}}{\sqrt{1-r^2}}$$

where: t= the value of t_{observed}

r = the coefficient of correlation of the result of r_{observed}

n = number of students

The distribution of t_{table} at alpha 5% and the degree of freedom (n-2) with the measurement of validity using these criteria:

$$t_{\text{observed}} > t_{\text{table}} = \text{Valid}$$

$$t_{\text{observed}} < t_{\text{table}} = \text{Invalid}$$

E. Research Instrument Reliability

1. Instrument Reliability

Donal Ary in Fatimah (2011, p. 54) say that “Reliability is concerne with the effect of error on the consistency of score. Reability is consistent in measuring whatever it is measuring. Heaton states (1974, p. 155) “Reability is necessary characteristic of any good test, for it to be valid all, a tes must first be reliable as a measuring instrument.

According to Arikunto (2006, p. 189) “To measure the reliability of the whole test can be estimated by using the formula of Kuder and Richardson:” The reliability of the test material will check through in the internal consistence of reliability it is measure of the degree to which the items of part of were homogenous or consistent with others.

In measuring the instruments reliability, the writer used KR-21 formula, as follows:

$$r_{11} = \left(\frac{K}{K-1} \right) \times \left(1 - \frac{M(K-M)}{K.Vt} \right)$$

Where: r_{11} = Instrument reliability
 K = Total number of test items

M = Mean of score
 V_t = The total variants

According to Suharto (1988, p. 125), the result of the calculation above is connected to the following criteria:

0,800 – 1000 = very high Reliability

0,600 – 0,799 = high Reliability

0,400 – 0, 599 = fair Reliability

0,200 – 0, 399 = poor Reliability

0,00 – 0,199 = very poor Reliability

2. Level of Difficulty

Heaton (1987, p. 172) states “The index of difficulty (or the facility value) of an item simply shows how easy or difficult the particular item proved in the test.” The index of difficulty (F.V.) is generally express as the fraction (or percentage) of the student who answer the item correctly. It was calculated using the formula:

$$F.V = \frac{R}{N}$$

Where: F.V = facility value

R = represent the number of correct answers

N = the number of students taking the test

Anas Sudijono (2000, p. 372) states “To interpret the index of difficulty, it used Robert L. Thorndike and Elizabeth Hagen’s interpretation.”

$P < 0.30$ = Difficult

$P 0.30-0.70$ = Fair

$P > 0.70$ = Easy

F. Data Collecting Procedure

To get the data that needed in the research, there were some of procedures to do, there were:

1. The writer observed the class
2. The writer choose the class into experiment group and control group by using cluster random sampling.
3. The writer tried out instrument to the students as the preliminary study
4. The writer analyzed the result of try out, so that the data gained from the test were valid or reliable
5. The writer gave pre-test to both groups
6. The writer gave treatment to the experiment group (VII A) four times and also four times regular teaching to the control group (VII B). Experiment group taught by used Word Search puzzle and control group taught without using Word Search puzzle the equal material was given both of groups
7. The writer gave post-test to both groups

8. The writer gave scores to the data from pre-test and post-test based on scoring system.

G. Data Analysis Procedure

The writer analysis the data with a few of way, there were:

1. The writer collected the result of test
2. The writer gave scores for the students that suitable with the criteria
3. The writer put the result into the table
4. The witer determined the mean scores with the formula:

$$M = \left[\frac{\sum f \cdot x}{N} \right]$$

Where:

M = Mean

Fx = frequency of score

X = Score

N = Number of test.

5. To analyse the data the writer used t-test, this statistical calculation is chosen because the study compares the mean of one group. The conclusion of study is to show the rejection or acceptance of the hypothesis, the writer used t-test the formula as follows:

$$T_o = \frac{Mx_1 - Mx_2}{Semx_1 - Semx_2}$$

Where:

T_o = The value of the mean difference will be judge

Mx_1 =The mean of the first group

Mx_2 =The mean of the second group

$Sem_1 - Sem_2$ =the standard error of the first and second mean

To know the hypothesis is accepted or rejected it is using the criterion:

If t-test (the value) $\geq t_{table}$, it means H_a is accepted and H_o is rejected.

If t-test (the value) $< t_{table}$, it means H_a is rejected and H_o is accepted.

Interpreting the result of t-test. Previously, the researcher accounts the degree of freedom (df) with the formula:

$$df = (N_1 + N_2 - 2)$$

df : degrees of freedom

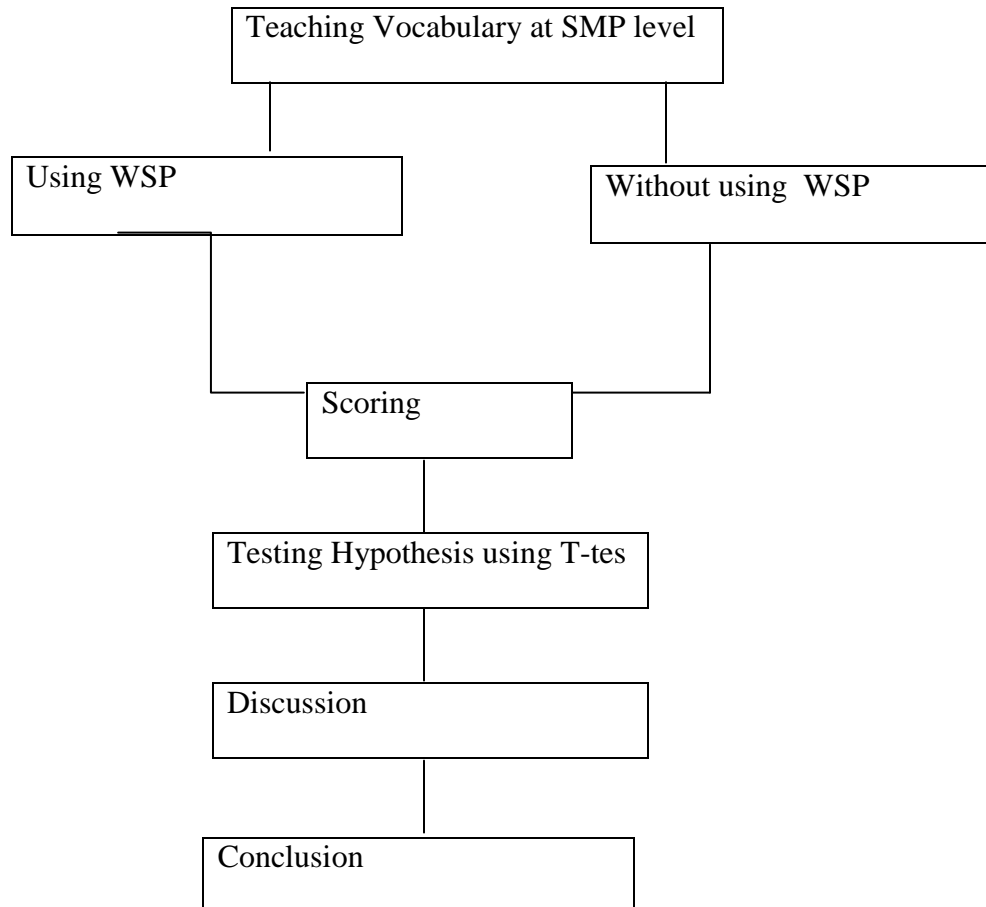
N_1 : number of subject group 1

N_2 : number of subject group 2

N : number of variables.

After that, the value of (df) is consulted on the t_{table} at the level of significance 1 % and 5%. In this study, the researcher uses the level of significant at 5%. If the result or t-test is higher than t_{table} , it means H_a is accepted, but if the result of t-test is lower than t_{table} , it means H_o is accepted.

Figure 3.1 The procedure of collecting data and analysis data



H. Normality Test

Before the writer calculated the value of t-test, the writer has to analyze the normality and homogeneity of the data. It examination of normality is need to know whether the data has been normally distributed. The researcher uses SPSS to tets the normality. In SPSS, there are two kinds of normality test: Kolmogrov Smirnov and Shapiro-Wilk. The criterion of SPSS:

- a. If respondents ≥ 50 , the normality test uses Kolmograv Smirnov.

b. If respondents ≤ 50 , the normality uses Shapiro Wilk.

The criterion of hypothesis is:

H0: Significant Score $> 0,05$

H1: Significant Score $< 0,05$

I. Homogeneity Test

The next step is calculating the homogeneity of data. The purpose of this calculation is to see whether the data / sample in both classes are homogenous or heterogeneous. Homogeneity test is used to know whether experimental group and control group, that are decided, come from population that has relatively same variant or not. In addition, the writer applied SPSS program.

It means, to analyze the result of homogeneity test on SPSS program:

1. If the Significant value is lower than 0,05, so the data population among two or more groups is different.
2. If the Significant value is higher than 0,05, so the data population among two or more groups is not different.

The data of this study are the students' vocabulary score. The data are in form of quantitative data.

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter discusses about presentation of data, testing Normality and Homogeneity, testing hypothesis using t-test, testing hypothesis using SPSS program, interpretation, and discussion

A. The Presentation of Data

In this section, it would be described the obtained data of improvement the students' vocabulary after and before taught by using word search puzzle. The presented data consisted of distribution of pretest score of experimental group.

1. Distribution of Pre- Test Score of Experimental Group

The test score of experimental group were presented in the following table.

Table 4.1
The Description of Pre Test Scores of the Data Achieved
by the Students in Experimental Group

NO	Students Code	Students Score
1	E01	66
2	E02	60
3	E03	74

4	E04	72
5	E05	72
6	E06	64
7	E07	64
8	E08	68
9	E09	58
10	E10	76
11	E11	76
12	E12	58
13	E13	78
14	E14	70
15	E15	54
16	E16	54
17	E17	72
18	E18	72
19	E19	70
20	E20	52
21	E21	64
22	E22	58
23	E23	66
24	E24	62

Table above describing the score of each student and show the student who passed and failed the test. It show, there were ten students who passed the test or about 41.67% in percentage and there were fourteen students who failed the test or about 58.33% in percentage.

Based on the data above, it can be seen that the students' highest score was 78 and the student's lowest score was 52. However, based on the evaluation Standard of English Subject, there were 14 students who failed since they got fewer 70. It mean that, most students still did not master about vocabulary especially noun.

**Table 4.2 The frequency distribution of pre-test scores
of the experiment class.**

No	Score (X)	Frequency (F)	FX
1	78	1	78
2	76	2	152
3	74	1	74
4	72	4	288
5	70	2	140
6	68	1	68
7	66	2	132

8	64	3	192
9	62	1	62
10	60	1	60
11	58	3	174
12	54	2	108
13	52	1	52
TOTAL		$\sum F=24$	$\sum FX=1580$

The distribution of students' pretest score can also be seen in the follow figure.

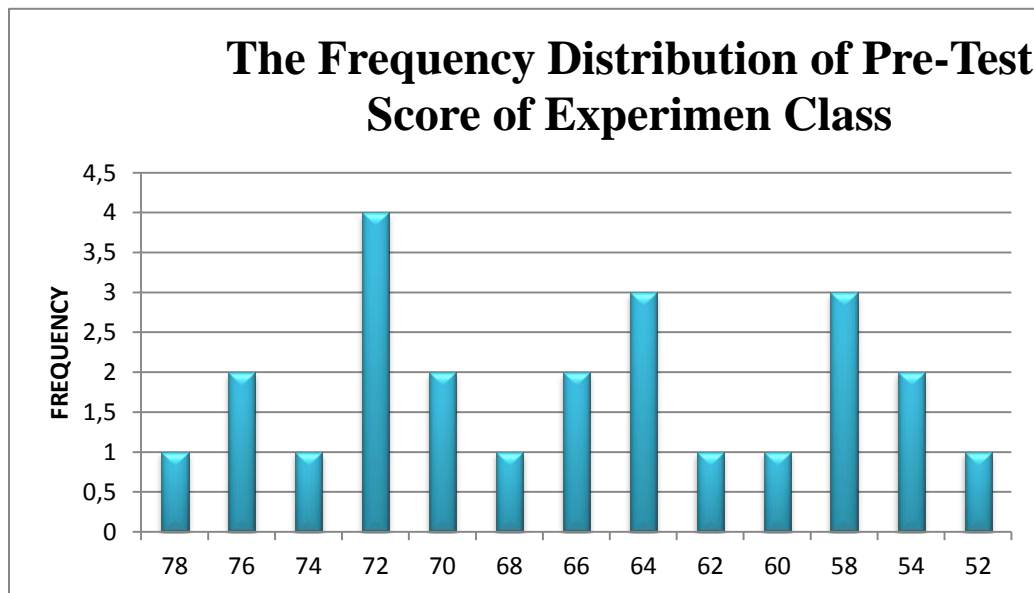


Figure 4.1 histogram of frequency distribution of pretest score or experiment group.

The table and figure above showed the students' pretest score of the experimental group. It could be seen that there was one student who got score 52. There were two students who got score 54. There were three students who got score 58. There was one student who got score 60. There was one student who got score 62. There were three students who got score 64. There were two students who got score 66. There was one student who got score 68. There were two students who got score 70. There were four students who got score 72. There was one student who got score 74. There were two students who got score 76. And there was one student who got score 78. In this case, many students got score under 70.

The next step, the writer tabulated the score into the table for the calculation mean, median, and modus as follow:

Table 4.3. The Calculation of Mean, Median, and Modus of Pre-Test Score for Experiment Class.

No	Score (X)	Frequency (F)	FX	Fkb	Fka
1	78	1	78	24	1
2	76	2	152	23	3
3	74	1	74	21	4
4	72	4	288	20	8
5	70	2	140	16	10

6	68	1	68	14	11
7	66	2	132	13	13
8	64	3	192	11	16
9	62	1	62	8	17
10	60	1	60	7	18
11	58	3	174	6	21
12	54	2	108	3	23
13	52	1	52	1	24
TOTAL		$\Sigma F=24$	$\Sigma FX=1580$		

From the table above, the data could be inserted in the formula of mean, median, and modus. In simple explanation, I are interval score of students, F is total students who got the score, FX is multiplication both X and F, Fkb is the cumulative students calculated from under to the top, in the other side Fka is the cumulative students calculated from top to the under. The process of calculation used formula below:

a. Mean

$$M = \frac{\Sigma Fx}{N}$$

$$M = \frac{1580}{24}$$

$$M = 65,8333333$$

$$M = 65,8$$

b. Median

$$N = 2n + 1$$

$$-2n = 1 - 24$$

$$n = \frac{-23}{-2}$$

$$n = 11.5$$

$$n = 66$$

c. Modus

$$Mo = 72$$

The calculation above showed of mean value was 65,8, the median was 66 and the modus taken from the highest frequency was 72 of the pretest of the experimental group.

The last step, the writer tabulated the scores of pretest of experimental group into the table for the calculation of standard deviation and the standard error as follows:

Table 4.4 The calculation of the standard deviation and standard error of the pretest score of experiment group.

No	Score (X)	Frequency (F)	FX	x	X ²	F.X ²
1	78	1	78	12.2	148.84	148.84

2	76	2	152	10.2	104.04	208.08
3	74	1	74	8.2	67.24	67.24
4	72	4	288	6.2	38.44	153.76
5	70	2	140	4.2	17.64	35.28
6	68	1	68	2.2	4.84	4.84
7	66	2	132	0.2	0.04	0.08
8	64	3	192	-1.8	3.24	9.72
9	62	1	62	-3.8	14.44	14.44
10	60	1	60	-5.8	33.64	33.64
11	58	3	174	-7.8	60.84	182.52
12	54	2	108	-11.8	139.24	278.48
13	52	1	52	-13.8	190.44	190.44
TOTAL		$\Sigma=24$	$\Sigma Fx=1580$			$\Sigma Fx^2 1327.36$

The table above used for calculate standard deviation and standard error by calculate standard deviation first. The process of calculation used formula below:

a. Standard Deviation

$$SD = \sqrt{\frac{\Sigma fx^2}{N}}$$

$$SD = \sqrt{\frac{132736}{24}}$$

$$SD = \sqrt{55.30666667}$$

$$SD = 7.436845209$$

b. Standard Error

$$SE_{MI} = \frac{SD}{\sqrt{N-1}}$$

$$SE_{MI} = \frac{7.436845209}{\sqrt{24-1}}$$

$$SE_{MI} = \frac{7.436845209}{\sqrt{23}}$$

$$SE_{MI} = \frac{7.436845209}{4.795831523}$$

$$SE_{MI} = 1.550689421$$

$$SE_{MI} = 1.55$$

The result of calculation showed the standard deviations of pretest score of experimental group was 7.436 and the standard error of pretest score of experimental group was 1.55.

2. Distribution of Pretest Scores of Control Group

The pretest scores of the control group were presented in the following table.

**Table 4.5 The Description of Pretest Scores of Data Achieved by the
Students in Control Group**

NO	Students Code	Students Score
1	C01	74
2	C02	68
3	C03	72
4	C04	76
5	C05	68
6	C06	76
7	C07	66
8	C08	70
9	C09	52
10	C10	60
11	C11	70
12	C12	76
13	C13	70
14	C14	72
15	C15	74
16	C16	62
17	C17	64
18	C18	66
19	C19	74
20	C20	76
21	C21	76
22	C22	50

23	C23	56
24	C24	62

Table above was describing the score of each student and show the student who passed and failed the test. It shows, there were thirteen students who passed the test or about 54.17% in percentage and there were twelve students who failed the test or about 45.83% in percentage.

Based on the data above, it can be seen that the students' highest score was 76 and the student's lowest score was 50. However, based on the evaluation standard of English subject, there were 11 students who failed since they got fewer than 70. It mean that, most students still did not master about vocabulary especially noun.

Table 4.6 The frequency distribution of pretest score for control group

No	Score (X)	Frequency (F)	FX
1	76	5	380
2	74	3	222
3	72	2	144
4	70	3	210
5	68	2	136
6	66	2	132
7	64	1	64

8	62	2	124
9	60	1	60
10	56	1	56
11	52	1	52
12	50	1	50
TOTAL		$\Sigma F = 24$	$\Sigma FX = 1630$

The distribution of students' pretest score can also be seen in the following figure.

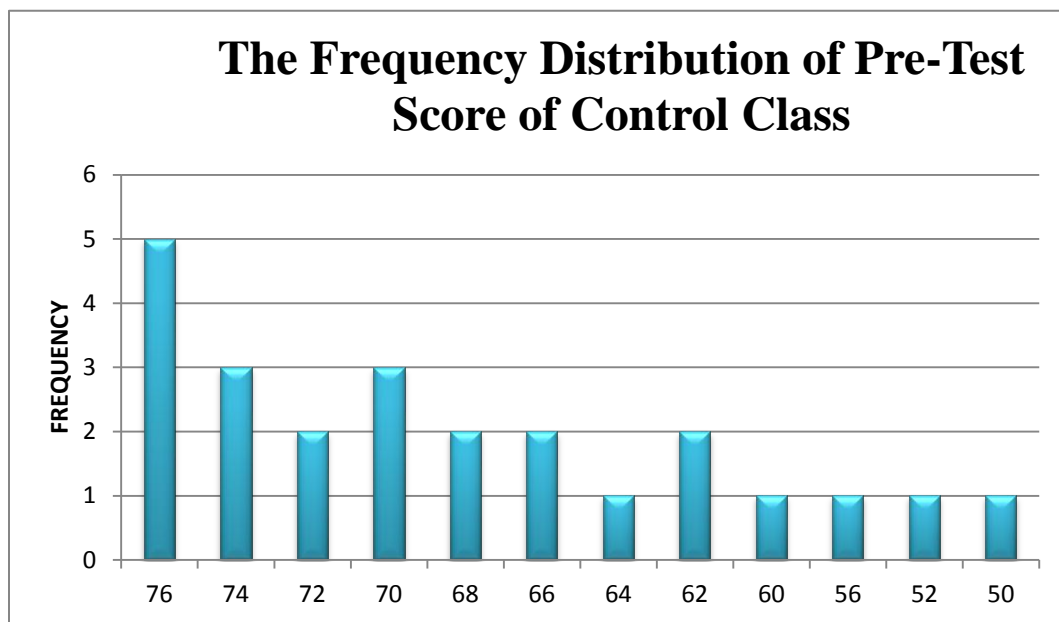


Figure 4.2 the frequency distribution of pretest score of the control group

The table and figure showed the pretest score of students in control group. It could be seen that there was one student who got score 50. There was one student

who got score 52. There was one student who got score 56. There was one student who got score 60. There were two students who got score 62. There was one student who got score 64. There were two students who got score 66. There were two students who got score 68. There were three students who got score 70. There were two students who got score 72. There were three students who got score 74. And there were five students who got score 76. In this case, many students got score under 70.

The next step, the writer tabulated the score into the table for calculation mean, median and modus as follows:

Table 4.7 The calculation of mean, median and modus of pretest score of the control group.

No	Score (X)	Frequency (F)	FX	Fkb	Fka
1	76	5	380	24	5
2	74	3	222	19	8
3	72	2	144	16	10
4	70	3	210	14	13
5	68	2	136	11	15
6	66	2	132	9	17
7	64	1	64	7	18
8	62	2	124	6	20
9	60	1	60	4	21

10	56	1	56	3	22
11	52	1	52	2	23
12	50	1	50	1	24
TOTAL		$\Sigma F = 24$	$\Sigma FX = 1630$		

From the table above, the data could be inserted in formula of mean, median and modus. In simple explanation, I are interval score of students, F is total students who got the score, FX is multiplication both X and F, Fkb is the cumulative students calculated from under to the top, in the other side Fka is the cumulative students calculated from top to the under. The process of calculation used formula below:

a. Mean

$$M = \frac{\Sigma fx}{N}$$

$$M = \frac{1630}{24}$$

$$M = 67.91666667$$

$$M = 67.9$$

b. Median

$$N = 2n + 1$$

$$-2n = 1 - 24$$

$$n = \frac{-23}{-2}$$

$$n = 11.5$$

$$n = 70$$

c. Modus

$$Mo = 76$$

The calculation above showed of mean value was 67.9, the median was 70 and the modus taken from the highest frequency was 76 of the pretest of the control group.

The last step, the writer tabulated the scores of pretest and control group into the table for the calculation of standard deviation and standard error as follows:

Table 4.8 The calculation of standard deviation and standard error of the pretest scores of control group.

No	Score (X)	Frequency (F)	FX	x	X ²	F.X ²
1	76	5	380	8.1	65.61	328.05
2	74	3	222	6.1	37.21	111.63
3	72	2	144	4.1	16.81	33.62
4	70	3	210	2.1	4.41	13.23
5	68	2	136	0.1	0.01	0.02
6	66	2	132	-1.9	3.61	7.22
7	64	1	64	-3.9	15.21	15.21
8	62	2	124	-5.9	34.81	69.62
9	60	1	60	-7.9	62.41	62.41
10	56	1	56	-11.9	141.61	141.61

11	52	1	52	-15.9	252.81	252.81
12	50	1	50	-17.9	320.41	320.41
TOTAL		$\Sigma F = 24$	$\Sigma FX = 1630$			$\Sigma Fx^2 = 1355.84$

The table above used for calculate standard deviation and standard error by calculate standard deviation first. The process of calculation used formula below:

a. Standard deviation

$$SD = \sqrt{\frac{\Sigma fx^2}{N}}$$

$$SD = \sqrt{\frac{1355.84}{24}}$$

$$SD = \sqrt{56.4933333337}$$

$$SD = 7.516204716$$

b. Standard Error

$$SE_{MI} = \frac{SD}{\sqrt{N-1}}$$

$$SE_{MI} = \frac{7.516204716}{\sqrt{24-1}}$$

$$SE_{MI} = \frac{7.516204716}{\sqrt{23}}$$

$$SE_{MI} = \frac{7.516204716}{4.795831523}$$

$$SE_{MI} = 1.567237022$$

$$SE_{MI} = 1.567$$

The result of calculation showed the standard deviation of pretest score of control group was 7.516 and the standard error of pretest score of control group was 1.567.

3. Distribution of posttest scores for experiment group

The posttest scores of the experimental group were presented by the following table.

Table 4.9 the description of posttest scores the data achieved by the students in experiment group

NO	Students Code	Students Score
1	E01	80
2	E02	76
3	E03	80
4	E04	90
5	E05	82
6	E06	76
7	E07	90
8	E08	72
9	E09	70
10	E10	82
11	E11	70
12	E12	68
13	E13	88
14	E14	82

15	E15	70
16	E16	82
17	E17	84
18	E18	84
19	E19	88
20	E20	80
21	E21	78
22	E22	82
23	E23	72
24	E24	74

Table above was describing the scores of each students and show the students who passed and failed the test. It shows there were twenty three students who passed the test or about 95.83% in percentage and there was one student who failed the test about 4.17% in percentage.

Based on the data above, it can be seen that the students' highest score was 90 and the student's lowest score was 68. However, based on the evaluation standard of English subject, there were twenty students who passed since the got more than 70. It meant that, there were most students master about vocabulary especially noun and there was only one students were still did not master.

**Table 4.10 The frequency distribution of the posttest scores of
the experimental group**

No	Score	Frequency	frequency	frequency
----	-------	-----------	-----------	-----------

	(X)	(F)	Relative (%)	Cumulative (%)
1	90	2	8.33	100
2	88	2	8.33	91.67
3	84	2	8.33	83.33
4	82	5	20.83	75
5	80	3	12.5	54.167
6	78	1	4.167	41.67
7	76	2	8.33	37.5
8	74	1	4.167	29.167
9	72	2	8.33	25
10	70	3	12.5	16.67
11	68	1	4.167	4.167
TOTAL		$\Sigma F = 24$		

Table above was describing how percentage of students in each scores. It can be seen the higher percentage was in scores 90 about two students and about 8.33% in percentage.

The distribution of students' posttest scores can also be seen in the following figure.

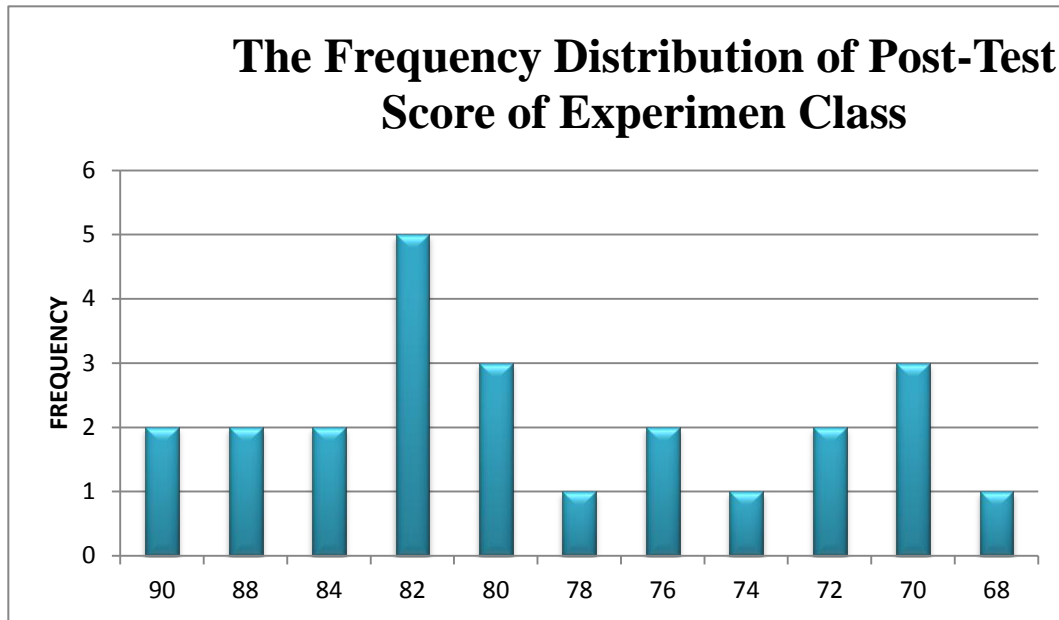


Figure 4.3 the frequency distribution of posttest score of the experimental group

The table and figure above showed the posttest scores of students in experiment group. It could be seen that there was one student who got score 68. There were three students who got scores 70. There were two students who got scores 72. There was one student who got score 74. There were two students who got scores 76. There was one student who got score 78. There were three students who got scores 80. There were five students who got scores 82. There were two students who got scores 84. There were two students who got scores 88. And there were two students who got scores 90. in this case, many students got scores up to 70.

The next step, the writer tabulated the score into the table for the calculation of mean, median and modus as follows:

Table 4.11 The table for calculating Means, Median, and Modus of posttest scores for the experimental group

No	Score (X)	Frequency (F)	FX	Fkb	Fka
1	90	2	180	24	2
2	88	2	176	22	4
3	84	2	168	20	6
4	82	5	410	18	11
5	80	3	240	13	14
6	78	1	78	10	15
7	76	2	152	9	17
8	74	1	74	7	18
9	72	2	144	6	20
10	70	3	210	4	23
11	68	1	68	1	24
TOTAL		$\Sigma F = 24$	$\Sigma FX = 1900$		

From the table above, the data could be inserted in the formula of mean, median and modus. In simple explanation, I are interval score of students, F is total students who got the scores, FX is multiplication both X and F, Fkb is the

cumulative students calculated from under to the top, in the other side Fka is the cumulative students calculated from top to the under. The process of calculation used formula below:

a. Mean

$$M = \frac{\sum Fx}{N}$$

$$M = \frac{1900}{24}$$

$$M = 79.16666667$$

$$M = 79.2$$

b. Median

$$n = 2n + 1$$

$$-2n = 1 - 24$$

$$n = \frac{23}{-2}$$

$$n = 11.5$$

$$n = 80$$

c. Modus

$$Mo = 82$$

Based on the result of calculation, it was found that the mean score of posttest was 79.2, the median was 80 and the modus taken from the highest frequency was 82 of the posttest of the experimental group.

The last step, the writer tabulated the scores of posttest and experimental group into the table for the calculation of standard deviation and standard error as follows:

Table 4.12 The calculation of the standard deviation and standard error of the posttest scores of experimental group

No	Score (X)	Frequency (F)	FX	x	X ²	F.X ²
1	90	2	180	10.8	116.64	233.28
2	88	2	176	8.8	77.44	154.88
3	84	2	168	4.8	23.04	46.08
4	82	5	410	2.8	7.84	39.2
5	80	3	240	0.8	0.64	1.92
6	78	1	78	-1.2	1.44	1.44
7	76	2	152	-3.2	10.24	20.48
8	74	1	74	-5.2	27.04	27.04
9	72	2	144	-7.2	51.84	103.68
10	70	3	210	-9.2	84.64	253.92
11	68	1	68	-11.2	125.44	125.44
TOTAL		ΣF = 24	ΣFX = 1900			ΣFX² = 1007.36

The table above used for calculated standard deviation and standard error by calculate standard deviation first. The process of calculation used formula below:

a. Standard deviation

$$SD = \sqrt{\frac{\sum fx^2}{N}}$$

$$SD = \sqrt{\frac{1007.36}{24}}$$

$$SD = \sqrt{41.97333333}$$

$$SD = 6,478682994$$

b. Standard Error

$$SE_{MI} = \frac{SD}{\sqrt{N-1}}$$

$$SE_{MI} = \frac{6,478682994}{\sqrt{24-1}}$$

$$SE_{MI} = \frac{6,478682994}{\sqrt{23}}$$

$$SE_{MI} = \frac{6,478682994}{4.795831523}$$

$$SE_{MI} = 1,350898788$$

$$SE_{MI} = 1.35$$

The result of calculation showed the standard deviation of posttest scores of experimental group was 6.478 and the standard error of posttest scores of experimental group was 1.35.

4. Distribution of posttest score for control group

The posttest scores of the control group were presented by the following table.

Table 4.13 the description of posttest scores the data achieved by the students in control group

NO	Students Code	Students Scores
1	C01	76
2	C02	70
3	C03	70
4	C04	72
5	C05	70
6	C06	76
7	C07	70
8	C08	78
9	C09	60
10	C10	70
11	C11	72
12	C12	88
13	C13	72
14	C14	76
15	C15	78
16	C16	70
17	C17	70

18	C18	68
19	C19	80
20	C20	80
21	C21	70
22	C22	76
23	C23	68
24	C24	66

Table above was describing the score of each student and show the student who passed and failed the test. It shows there were twenty students who passed the test or about 83.33% in percentage and there were four students who failed the test about 16.67% in percentage.

Based on the data above, it can be seen that the students' highest score was 88 and the student's lowest score was 60. However, based on the evaluation standard of English subject, there were twenty students who passed since they got more than 70. It meant that, there were most students master about vocabulary especially noun and there were only four students who still did not master.

Table 4.14 the frequency distribution of the posttest scores of the experimental group

No	Score (X)	Frequency (F)	frequency Relative (%)	frequency Cumulative (%)
1	88	1	4,167	100

2	80	2	8,33	95,833
3	78	2	8,33	87,503
4	76	4	16,67	79,173
5	72	3	12,5	62,503
6	70	8	33,33	50,003
7	68	2	8,33	16,673
8	66	1	4,167	8,343
9	60	1	4,167	4,176
TOTAL		$\Sigma F = 24$		

Table above was describing how percentage of students in each scores. It can be seen the higher percentage was in score 88 about one student and about 4.167% in percentage.

The distribution of students' posttest scores can also be seen in the following figure.

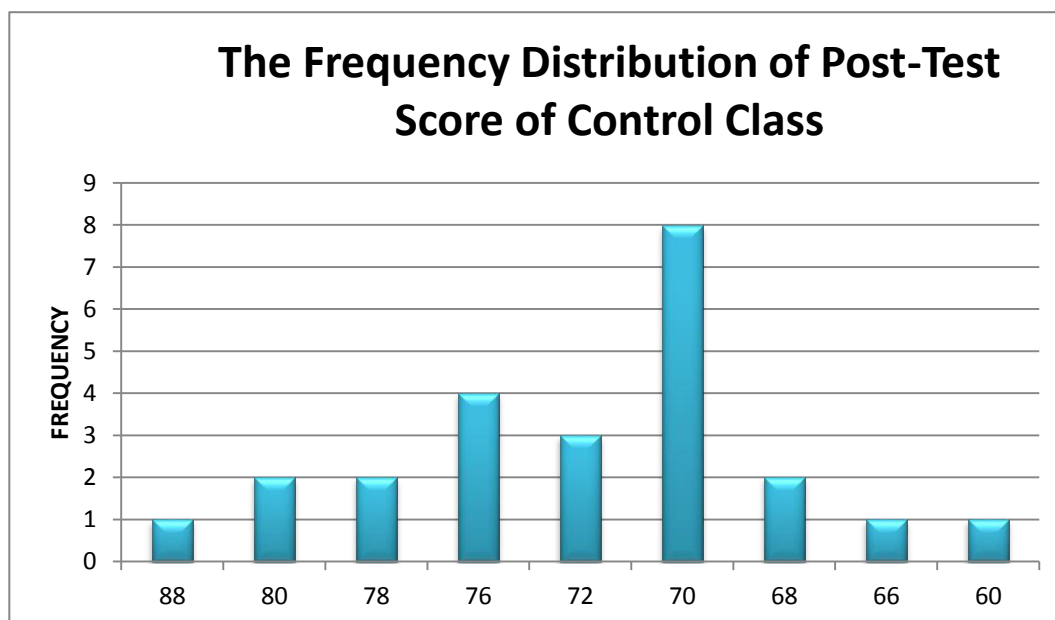


Figure 4.4 the frequency distribution of posttest score of the control group

The table and figure above showed the posttest score of students in control group. It could be seen that there was one student who got score 60. There was one student who got score 66. There were two students who got scores 66 There were eight students who got scores 70. There were three students who got scores 72. There were four students who got scores 76. There were two students who got scores 78. There were two students who got scores 80. And there was one student who got score 88. In this case, many students got score up to 70.

The next step, the writer tabulated the scores into the table for the calculation of mean, median and modus as follows:

Table 4.15 the table for calculating Means, Median, and Modus of posttest scores for the control group

No	Score (X)	Frequency (F)	FX	Fkb	Fka
1	88	1	88	24	1
2	80	2	160	23	3
3	78	2	156	21	5
4	76	4	304	19	9
5	72	3	216	15	12
6	70	8	560	12	20
7	68	2	136	4	22
8	66	1	66	2	23
9	60	1	60	1	24
TOTAL		24	1746		

From the table above, the data could be inserted in the formula of mean, median and modus. In simple explanation, I are interval score of students, F is total students who got the score, FX is multiplication both X and F, Fkb is the cumulative students calculated from under to the top, in the other side Fka is the cumulative students calculated from top to the under. The process of calculation used formula below:

a. Mean

$$M = \frac{\sum Fx}{N}$$

$$M = \frac{1746}{24}$$

$$M = 72.75$$

$$M = 72.75$$

b. Median

$$N = 2n + 1$$

$$-2n = 1 - 24$$

$$n = \frac{23}{-2}$$

$$n = 11.5$$

$$n = 72$$

c. Modus

$$Mo = 70$$

Based on the result of calculation, it was found that the mean score of posttest was 72.75, the median was 72 and the modus taken from the highest frequency was 70 of the posttest of the control group.

The last step, the writer tabulated the scores of posttest and control group into the table for the calculation of standard deviation and standard error as follows:

Table 4.16 the table of calculation of the standard deviation and standard error of the posttest scores of control group

No	Score (X)	Frequency (F)	FX	x	X ²	F.X ²
1	88	1	88	15,25	232,563	232,5625
2	80	2	160	7,25	52,5625	105,125
3	78	2	156	5,25	27,5625	55,125
4	76	4	304	3,25	10,5625	42,25
5	72	3	216	-0,75	0,5625	1,6875
6	70	8	560	-2,75	7,5625	60,5
7	68	2	136	-4,75	22,5625	45,125
8	66	1	66	-6,75	45,5625	45,5625
9	60	1	60	-12,75	162,563	162,5625
TOTAL		24	1746			750,5

The table above used for calculated standard deviation and standard error by calculate standard deviation first. The process of calculation used formula below:

a. Standard deviation

$$SD = \sqrt{\frac{\sum fx^2}{N}}$$

$$SD = \sqrt{\frac{750,5}{24}}$$

$$SD = \sqrt{31.27083333}$$

$$SD = 5,592033023$$

b. Standard Error

$$SE_{MI} = \frac{SD}{\sqrt{N-1}}$$

$$SE_{MI} = \frac{5,592033023}{\sqrt{24-1}}$$

$$SE_{MI} = \frac{5,594033023}{\sqrt{23}}$$

$$SE_{MI} = \frac{5,594033023}{4.795831523}$$

$$SE_{MI} = 1,166019489$$

$$SE_{MI} = 1.17$$

The result of calculation showed the standard deviation of posttest score of control group was 5.59 and the standard error of posttest score of control group was 1.17.

B. Testing Normality and Homogeneity

One of the requirements in experimental design was the test of normality assumption. Agus Irianto states (2004: 62) The data of population will be normal if the mean same with the modus and median. It means that some of scores gather in the middle position, meanwhile the frequency of average and low score

show the descent that more balance. Because of the low score frequency and the high score is balance, so that the down of curve line to right and left will be balance. Because of that, the writer used SPSS 18 to measure the normality of the data.

1. Testing Normality

Table 4.17 The normality of pretest experimental group and control group using SPSS

Tests of Normality

groups	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
score eksperimental	.125	24	.200 [*]	.955	24	.349
control	.149	24	.183	.893	24	.015

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

The criteria of normality test, pretest of experimental group and control group is if the value of (probability value/critical value) was higher than equal to the level of significance alpha defined ($r = \alpha$), it mean that, the distribution was normal. Based on the calculation using SPSS 18 above, the value of r (probability value/critical value) from pretest of experimental group and control group in Shapiro-Wilk table was higher than level of significance alpha used or $r = 0.349 > 0.05$ (pretest of experimental group) and $r = 0.15 > 0.05$ (pretest of control group) so the distribution are normal. It mean that the

student' scores of in pretest of experimental group and control group had a normal distribution.

**Table 4.18 The normality of posttest experimental group
and control group using SPSS**

Tests of Normality

Class		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
score	eksperimental	.133	24	.200*	.946	24	.220
	control	.185	24	.033	.933	24	.115

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

The criteria of normality test, posttest of experimental and control group is if the value of (probability value/critical value) was higher than equal to the level of significance alpha defined ($r = \alpha$), it mean that, the distribution was normal. Based on the calculation using SPSS 18 above, the value of r (probability value/critical value) from posttest of experimental and control group in Shapiro-Wilk table was higher than level of significance alpha used or $r = 0.220 > 0.05$ (posttest of experimental group) and $r = 0.115 > 0.05$ (posttest of control group) so the distribution are normal. It mean that the student' score of in posttest of experimental group and control group had a normal distribution.

2. Testing homogeneity

**Table 4.19 The Homogeneity of pretest experimental group
and control group using SPSS**

Test of Homogeneity of Variances
Score

Levene Statistic	df1	df2	Sig.
.040	1	46	.843

ANOVA
Score

	Sum Squares	of df	Mean Square	F	Sig.
Between Groups	52.083	1	52.083	.893	.350
Within Groups	2683.167	46	58.330		
Total	2735.250	47			

The criteria of homogeneity test, pretest of experiment group and control group was if the value of (probability value/critical value) was higher than or equal to the level of significance alpha defined (α), it mean that the distribution was homogeneity. Based on the calculation using SPSS 18 above, the value of (probability value/critical value) from pretest of experiment group and control group on homogeneity of variances in sig column is known that p-value was 0.843. The data in this study fulfilled homogeneity since the p value is higher $0.834 > 0.05$.

**Table 4.20 The Homogeneity of posttest experimental group and control group
using SPSS**

Test of Homogeneity of Variances
Score

Levene Statistic	df1	df2	Sig.
1.043	1	46	.312

ANOVA
Score

	Sum Squares	of df	Mean Square	F	Sig.
Between Groups	494.083	1	494.083	12.929	.001
Within Groups	1757.833	46	38.214		
Total	2251.917	47			

The criteria of homogeneity test, posttest of experiment group and control group was if the value of (probability value/critical value) was higher than or equal to the level of significance alpha defined (α), it mean that the distribution was homogeneity. Based on the calculation using SPSS 18 above, the value of (probability value/critical value) from posttest of experiment group and control group on homogeneity of variances in sig column is known that p-value was 0.312. The data in this study fulfilled homogeneity since the p value is higher $0.312 > 0.05$.

C. Testing Hypothesis using t-test

The writer chose the significance level on 5%, it means the significance level of refusal of null hypothesis type stated on non-directional (two-tailed test). It means that the hypothesis cannot direct the prediction of alternative hypothesis. Alternative hypothesis symbolized by “1”. This symbol could direct the answer of hypothesis “1” can be ($>$) or ($<$). The answer of hypothesis could not be predicted whether on more than or less than.

To test the hypothesis of the study, the writer used t-test statistical calculation. Firstly, the writer calculated the standard deviation and the error of X_1 and X_2 at the previous data presentation. In could be seen on this following table:

Table 4.21 The standard deviation and standard error of X_1 and X_2

Variable	Standard deviation	Standard error
X_1	6.479	1.35
X_2	5.592	1.17

X_1 = Experimental group

X_2 = Control group

The table showed the result of standard deviation calculation of X_1 was 6,479 and the result of the standard error mean calculation was 1.35. The result of the standard deviation calculation of X_2 was 5. 592 and the result of the standard error mean calculation 1.17.

The next step, the writer calculated the standard error of the differences mean between X_1 and X_2 as follows:

Standard error mean of score difference between variable I and variable II $SE_{M1} - SE_{M2} = \sqrt{SE_{M1}^2 + SE_{M2}^2}$

$$SE_{M1} - SE_{M2} = \sqrt{(1.35)^2 + (1.17)^2}$$

$$SE_{M1} - SE_{M2} = \sqrt{1.8225 + 1.3689}$$

$$SE_{M1} - SE_{M2} = \sqrt{3.1914}$$

$$SE_{M1} - SE_{M2} = 1.786448992$$

$$SE_{M1} - SE_{M2} = 1.786$$

The calculation above showed the standard error of the differences mean between X_1 and X_2 was 1.786 Then, it was inserted to the t_o formula to get the value of t observed as follow:

$$T_0 = \frac{M1 - M2}{SE_{M1} - SE_{M2}}$$

$$T_o = \frac{79.2 - 72.75}{1.786}$$

$$T_o = \frac{6.45}{1.786}$$

$$T_o = 3.611422$$

$$T_o = 3.61$$

Which the criteria:

If t-test (t-observed) \geq t-table, Ha is accepted and Ho is rejected

If t-test (t-observed) $<$ t-table, Ha is rejected and Ho is accepted

Then, the writer interpreted the result of t-test; previously, the writer accounted the degree of freedom (df) with the formula:

$$Df = (N_1 + N_2) - 2$$

$$= (24 + 24) - 2$$

$$= 48 - 2$$

$$= 46$$

5%	t_o	1%
2.01	$<3.61>$	2.69

The writer choose the significant level at 5%, it means the significant level of refusal of null hypothesis at 5%. The writer decided the significant level at due of the hypothesis typed stated on non-directional (two-tailed test). It meant that the hypothesis cannot direct the prediction of alternative hypothesis. Alternative hypothesis symbolized by “1”. This symbol could direct the answer of hypothesis “1” can be ($>$) or ($<$). The answer of hypothesis could not be predicted whether on more than or less than.

The calculation above showed the result of t-test calculation as in the table follow:

Table 4.22 The calculation of T-test

Variable	T Observed	T table		Df/db
		5%	1%	
$X_1 - X_2$	3.61	2.01	2.69	46

Where:

X_1 = Experimental Group

X_2 = Control Group

T observed = The calculated value

T table = The distribution of t value

Df/db = Degree of freedom

Based on the result of hypothesis test calculation, it was found that the value of t_{observed} was greater than the value of t_{table} at 1% and 5% significance level or $2.01 < 3.61 > 2.69$. it means H_a was accepted and H_o was rejected.

It could be interpreted based on the result of calculation that H_a stating that the use of Word search puzzle gain better scores than the students whom taught without using word search puzzle at SMP Muhammadiyah Palangka Raya was accepted. H_a stating that the use of Word search puzzle gain better scores than the students whom taught without using word search puzzle at SMP Muhammadiyah Palangka Raya was accepted, and H_o stating that the use of Word search puzzle does not gain better scores than the students whom taught without using word search puzzle at SMP Muhammadiyah Palangka Raya was rejected. It means that teaching vocabulary using Word Search Puzzle gave significant effect on the students' vocabulary score of the seventh grade students at SMP Muhammadiyah Palangka Raya.

D Testing Hypothesis using SPSS Program

The writer also applied SPSS 18.0 program to calculate t test in testing hypothesis of the study. The result of the t test using SPSS 18.0 was used to support the manual calculation of the t test. The result of the test using SPSS 18.0 program could be seen as follows:

**Table 4.23 The standard deviation and the standard Error
of X_1 and X_2 using SPSS**

Group Statistics

Class	N	Mean	Std. Deviation	Std. Error Mean
Posttest experiment class	24	79.17	6.618	1.351
control class	24	72.75	5.712	1.166

The table showed the result of the standard deviation calculation of X_1 was 6.618 and the result of the standard error mean calculation was 1.351. The result of standard deviation calculation of X_2 was 5.712 and the standard error mean calculation was 1.166.

Table 4.24 The calculation of T-test using SPSS 18.0

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Posttest	Equal variances assumed	1.043	.312	3.596	46	.001	6.417	1.785	2.825	10.009

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Posttest	Equal variances assumed	1.043	.312	3.596	46	.001	6.417	1.785	2.825	10.009
	Equal variances not assumed			3.596	45.039	.001	6.417	1.785	2.823	10.011

The table showed the result of t-test calculation using SPSS 18.0 program. Since the result of posttest between experimental and control group had difference score of variance, it meant the t-test calculation used at the equal variances not assumed. It found that the result of t_{observed} was 3.596, the result of mean difference between experimental and control group was 6.417 and the standard error difference between experimental and control group was 1.785.

E. Interpretation

To examine the truth or false of null hypothesis stating that the use of Word search Puzzle does not gain better scores than the students whom taught without using word search puzzle at SMP Muhammadiyah Palangka Raya, the result of t – test was interpreted on the result of degree of freedom to get the T_{table} . The result of degree of freedom (df) was 46, it found from total number of the student in both group minus 2. The following table was the result of $T_{Observed}$ and T_{Table} from 46 df at 5% and 1% significance level.

Table 4.25 The Result of T-test

Variable	T Observed	T table		Df/db
		5%	1%	
$X_1 - X_2$	3.61	2.01	2.69	46

The interpretation of the result of t -test, it was found the $T_{Observed}$ was greater than the T_{table} at 1% and 5% significance level or $2.01 < 3.61 > 2.69$. it mean that H_a was accepted and H_0 was rejected.

It could be interpreted based on the result of calculation that H_a stating that the use of Word search puzzle gain better scores than the students whom taught without using word search puzzle at SMP Muhammadiyah Palangka Raya was accepted and H_0 stating that the use of Word search puzzle does not gain better scores than the students whom taught without using word search puzzle at SMP

Muhammadiyah Palangka Raya was rejected. It means that teaching vocabulary using Word Search Puzzle gave significant effect on the students' vocabulary score of the seventh grade students at SMP Muhammadiyah Palangka Raya.

F. Discussion

In teaching learning process, English vocabulary by using word search puzzle was a toll used by the teacher to teach the students. Word search puzzle approach could make a good interaction between teacher and students. From the result analysis, it could be seen from the student's scores show where using game gave positive effect for student's vocabularies. It meant media has important role in teaching learning process.

The result supported by theory (Nguyen Thi Thanh Huyen) about the "learning vocabulary through games is one effective and increasing way that can be applied in any classrooms" (Chapter II, p.27). Games not only motivate learners and create a friendly atmosphere they are aimed at developing all language skills. Consequently, games can motivate, promote learners' interaction, improve their acquisition and increase their achievement. Based on Lukianenko (2008, p. 10) the reason was about the advantages of game in learning process, such as: They encourage students to interact and communicate, games can involve all the basic language skills, i.e., listening, speaking, reading, and writing, and a number of skills are often involved in the same game, many games can be played in small groups, there by developing their interpersonal skills, games involve students in

active learning, they foster a more positive attitude toward the classroom experience – more attention, better attendance, better participation, they improve retention, decision-making skills, and comprehension of general principles. From the data above, it can be known that teaching vocabulary by using word search puzzle game of learning process gave significant effects in improving students' English vocabulary. The students more interested in receiving vocabulary using word search puzzle game. So, the writer improved students' English vocabulary by using word search puzzle was balanced to the theory in chapter II. The theory supported the use of word search puzzle game as a media in learning process and suitable with the condition at seventh grade students of SMP Muhammadiyah Palangka Raya.

The result of data analysis showed that word search puzzle gave effect toward the vocabulary achievement at the seventh grade students of SMP Muhammadiyah Palangka Raya. It can be seen from the mean scores between pretest and posttest of the experiment class students. The mean scores of posttest reached higher score than the mean score of pretest ($79.2 > 65.8$). It indicated that the students' scores increased after conducting treatment. In other word, teaching vocabulary by using word search puzzle gave significant effect toward the students' vocabulary.

Meanwhile, after the data was conducted using the t_{test} formula using manual calculation showed that the t_{observed} was 3.61. By comparing the t_{observed} with the

t_{table} , it was found that the $t_{\text{observerd}}$ was higher than t_{table} at 5% level significance or

$$t_{\text{observerd}} = 3.61 > t_{\text{table}} = 2.01.$$

CHAPTER V

CLOSING

In this chapter, the writer would like to give conclusion and some suggestions based on the result of study, as the following:

A. Conclusion

After obtaining the data analysis from the score obtained of English test, it could answer the problem of the study which to measure the effect of using word search puzzle toward the vocabulary at seventh grade students of SMP Muhammadiyah Palangka Raya. Based on the result of data analysis, the students' scores from the experimental group (taught using word search puzzle) and the students' scores from the control group (taught without using word search puzzle) were significantly different.

In the result of hypothesis was using calculation of t-test with SPSS 18.0. The result of t-test with SPSS 18.0 calculation found the calculated value (t_{observed}) was greater than (t_{table}) at 1% and 5% significance level or $2.01 < 3.61 > 2.69$. It was interpreted that alternative hypothesis (H_a) which stated that students whom taught using word search puzzle gain better scores than the students whom taught without using word search puzzle was accepted and null hypothesis (H_o) students whom taught using word search puzzle does not gain better scores than the students whom taught without

using word search puzzle was rejected. It meant that using word search puzzle in teaching English vocabulary gives effect on the students' scores at seventh grade of SMP Muhammadiyah Palangka Raya.

B. Suggestions

Based on the findings of this study, the strengths and weaknesses of this technique, then the suggestion are made. The writer would like to propose some suggestions for the students, teacher, and the other researcher as follow:

1. For the Students

For the students, when they studied English vocabulary using word search puzzle game, it was recommended that they have to pay attention the explanation by the teacher on English vocabulary. By understanding the vocabulary of word search puzzle, the students may know the meaning of vocabulary and can be seen the word search puzzle directly. Additionally, by remembering the vocabulary the student can increases their vocabulary about school and also the students can practice their English vocabulary orally.

2. For the Teachers

It is suggested to the teacher to comprehend the students' level, problem in learning English, and students' strategy in learning English. Especially, teaching English vocabulary. The teachers also suggested to be

able to use the game in their teaching learning process in order the students easier to understand the material that taught.

3. For the Researcher

In this thesis, the writer recommends for the other researcher who wants to conduct the study related to the teaching method especially in English vocabulary with other interesting game and method on other grades, and the other researcher can improve this study with better design and different object in order to support the result finding. In other word, the other researcher can use this research as the reference for conducting their research.

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